

COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

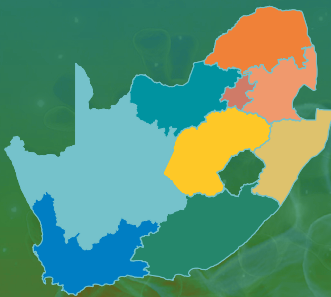


NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

SOUTH AFRICA WEEK 49 2020

CUMULATIVE DATA FROM



CASES

814 565
IN TOTAL

22 020
THIS WEEK



PERSONS

1 366.2
INCIDENCE RISK*

40
MEDIAN AGE

PROVINCES AT A GLANCE



* Incidence risk - cases per 100 000 persons
** based on samples collected/received in current reporting week

SUMMARY

Overview of report

Disease surveillance is a core function of the National Institute for Communicable Diseases (NICD), a division of the National Health Laboratory Service (NHLS). This report summarises data from a national laboratory-based surveillance system that is used to monitor the coronavirus disease 2019 (COVID-19) pandemic in South Africa. This report is based on data collected up to 5 December 2020 (week 49 of 2020). Note: COVID-19 is the name of the disease and SARS-CoV-2 is the name of the virus. Trends in numbers of new cases by province and age group may be affected by changes in testing practice and delays in testing of specimens. The numbers reported may change as more data become available.

Highlights

- As of 5 December 2020, a total of 814 565 laboratory-confirmed COVID-19 cases had been detected in South Africa. Of these, 26 863 were cases reported since the last report. There was a 7.2% increase in number of new cases detected in week 49 (22 020) compared to the number of new cases detected in week 48 (20 550).
- An additional 729 deaths were reported since the last report. The overall case-fatality ratio was 2.7% (22 206/814 565).
- In week 49, Western Cape Province reported the highest proportion of the new cases detected (7 809/22 020, 35.5%), followed by Eastern Cape Province (6 721/22 020, 30.5%), KwaZulu-Natal Province (3 408/22 020, 15.5%), and Gauteng Province (2 745/22 020, 12.5%).
- In week 49, all provinces reported an increase in weekly incidence risk, except Eastern Cape Province (45.1 cases per 100 000 persons, 31.1% reduction) and Mpumalanga Province (0.3 cases per 100 000 persons, 5.0% reduction) which reported a decrease in weekly incidence risk, compared to week 48. The increase ranged from 0.7 cases per 100 000 persons (22.3% increase) in Limpopo Province to 24.1 cases per 100 000 persons (27.5% increase) in Western Cape Province. Delays in reporting could affect these trends.
- In the past week, Western Cape Province (111.5 cases per 100 000 persons), followed by Eastern Cape Province (99.8 cases per 100 000 persons), KwaZulu-Natal Province (29.6 cases per 100 000 persons), Northern Cape Province (17.9 cases per 100 000 persons), and Gauteng Province (17.7 cases per 100 000 persons), reported the highest weekly incidence risk. The weekly incidence risk in all the other provinces was less than 15 cases per 100 000 persons.
- The increase in number of cases from Eastern Cape Province in the past few weeks was mainly due to a resurgence in COVID-19 cases from Nelson Mandela Bay District and Sarah Baartman District, with peak weekly incidence risk in Nelson Mandela Bay District (369.6 cases per 100 000) in week 47 reaching levels higher than the first wave peak (226.0 cases per 100 000 persons) in week 27. Sarah Baartman District also reported a higher peak weekly incidence risk in week 47 (386.1 cases per 100 000 persons) compared to the peak in week 27 (218.1 cases per 100 000 persons). The apparent decrease in number of cases and weekly incidence risk reported from these two districts in the past week is possibly due to delays in reporting.
- The increase in number of cases in Western Cape Province in recent weeks was driven by a resurgence in COVID-19 cases reported mostly from Garden Route District where the weekly incidence risk increased gradually from week 41 to 43, and sharply from week 43 to week 47, with incidence risk in week 48 (337.0 cases per 100 000 persons) much higher than the peak weekly incidence risk during the first wave (179.9 cases per 100 000 persons) in week 30. The other driver was Central Karoo District with weekly incidence risk reported in week 49 (133.1 cases per 100 000 persons) higher than that reported in the first wave (118.5 cases per 100 000 persons) in week 31. City of Cape Town District and Cape Winelands District showed a gradual increase from week 45 and week 46 to date, respectively.
- Provincial graphs by districts and age group (except Eastern Cape Province and Western Cape Province which are included in this report can be accessed [here](#).

INCIDENCE
RISK FOR
WEEK 49

36,9
CASES PER
100 000
PERSONS

35,5%
OF CASES
REPORTED IN
WESTERN CAPE IN
WEEK 49

IN WEEK 49,
THE HIGHEST
WEEKLY
INCIDENCE RISK
WAS IN CASES
AGED 50-54
YEARS (80,8
CASES PER 100
000 PERSONS)

Methods

Testing for SARS-CoV-2 began on 28 January 2020 at the NICD and after the first case was confirmed in early March 2020, testing was expanded to a larger network of private and NHLS laboratories. Respiratory specimens were submitted from persons under investigation (PUI). Initially, tested individuals were those who had travelled to countries with COVID-19 transmission but the PUI definition was changed over time. Community symptom screening and referral for PCR testing was implemented in April 2020 but the strategy was changed to a more targeted approach in May 2020. Community screening was largely discontinued and testing efforts then focussed on areas identified as hot spots and on investigating clusters. Contacts of cases were traced and tested if symptomatic. In some provinces and in certain circumstances (e.g. closed settings, workplaces), asymptomatic contacts were tested. In recent weeks, testing has been prioritised for healthcare workers and hospitalised patients. Laboratories used any one of several in-house and commercial PCR assays to test for the presence of SARS-CoV-2 RNA. We excluded specimens collected outside South Africa. Date of specimen receipt in the laboratory was used when date of specimen collection was missing. A case of COVID-19 was defined as any person, resident in South Africa, with a single positive SARS-CoV-2 PCR test. For reports published from week 41 onwards we used mid-year population estimates from Statistics South Africa for 2020 to calculate the incidence risk (cumulative or weekly incidence), expressed as cases per 100 000 persons. In historical reports published from epidemiologic week 10 (during the start of COVID-19 epidemic in South Africa) to week 40, 2019 mid-year population estimates were used. Aggregate data on the number of deaths by province were obtained from the Department of Health. Data on number of tests conducted in the past week as reported in the simultaneously-published COVID-19 weekly testing report was used to calculate tests conducted per 100 000 population. Data on province and district allocation was based on geocoding algorithm using in order of priority (i) completeness of patient data, (ii) submitting doctor's address, (iii) registering doctor's address and as final option, (iv) the guarantor's address data. The geocoding algorithm used the most complete data for assigning data on province and district where adequate information was provided on the lab request form at the time of sample collection. Data on district allocation may lag resulting in number of cases in recent weeks missing district allocation. Prevalence and incidence risk by districts should be interpreted with caution.

We estimated the time-varying (weekly) doubling time of the COVID-19 epidemic for the provinces with sufficient data and from weeks with sufficient number of cases and complete data (week 12 to the week before the current reporting period). The unit of analysis (epidemiological week) was defined from Sunday to the following Saturday. We first estimated the weekly growth rate of the epidemic by fitting a linear regression model to the logarithm of the daily cumulative number of laboratory-confirmed COVID-19 cases. We then estimated the doubling time for each week using the following formula $\log(2)/gr$ (where gr is the estimated weekly growth rate). An increase in the doubling time may suggest a slowing of transmission but this may also be affected by changes in testing strategy or care seeking. Until the week 29 report, new cases were defined as all cases reported since the last report, irrespective of when the sample was collected. Subsequent to the week 29 report, new cases are now defined as cases detected in the past epidemiologic week based on date of sample collection or sample receipt. It is therefore possible for numbers reported as new cases for the current reporting week not to tally with total additional cases reported since the last report. This will be the case when there was a delay in reporting of cases.

National and provincial trends of COVID-19 cases in South Africa

As of 5 December 2020, a total of 814 565 laboratory-confirmed COVID-19 cases were reported in South Africa. This is 26 863 more cases than the number reported in the last report. The number of new cases detected in week 49 (22 020) was slightly higher than the number of new cases detected in week 48 (20 550), this represented a 7.2% increase in number of new cases compared to the previous week. In the past week, Western Cape Province reported the highest number of new cases (7 809/22 020, 35.5%), followed by Eastern Cape Province (6 721/22 020, 30.5%), KwaZulu-Natal Province (3 408/22 020, 15.5%), and Gauteng Province (2 745/22 020, 12.5%) (Table 1). Five provinces, Gauteng (237 719/814 565, 29.2%), Western Cape (140 257/814 565, 17.2%), Eastern Cape (136 772/814 565, 16.8%), KwaZulu-Natal (131 350/814 565, 16.1%), and Free State (59 351/814 565, 7.3%) continued to report the majority (705 449/814 565, 86.6%) of total COVID-19 cases in South Africa. In keeping with the data reported in the previous weeks, there was minimal change in percent contribution of cases in the different provinces from week 48 to week 49.

The cumulative incidence risk for the country increased from 1 329.3 cases per 100 000 persons in week 48 to 1 366.2 cases per 100 000 persons in week 49. The cumulative incidence risk varied by province over time (Figure 3). This is partly explained by testing differences by province (Table 1). The Eastern Cape Province (2 031.1 cases per 100

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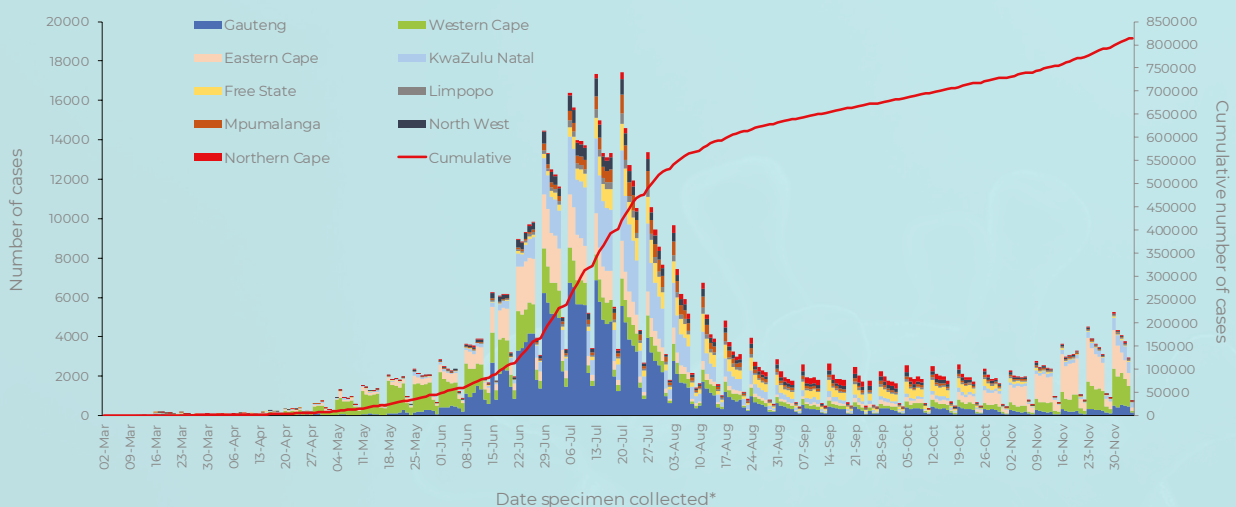
000 persons), replaced Free State Province (2 026.4 cases per 100 000 persons) as the province with the highest cumulative incidence risk, followed by Western Cape Province (2 002.0 cases per 100 000 persons), Northern Cape Province (1 813.9 cases per 100 000 persons), Gauteng Province (1 534.8 cases per 100 000 persons), and KwaZulu-Natal Province (1 139.0 cases per 100 000 persons). The other provinces continued to report cumulative incidence risk below 1 000 cases per 100 000 persons, with Limpopo Province reporting the lowest cumulative incidence risk (321.8 cases per 100 000 persons).

In the past week, Western Cape Province reported the highest weekly incidence risk (111.5 cases per 100 000 persons), followed by Eastern Cape Province (99.8 cases per 100 000 persons), KwaZulu-Natal Province (29.6 cases per 100 000 persons), Northern Cape Province (17.9 cases per 100 000 persons), and Gauteng Province (17.7 cases per 100 000 persons). The weekly incidence risk in all the other provinces remained below 15 cases per 100 000 persons. In the past week, all provinces reported an increase in weekly incidence risk, except Eastern Cape Province (45.1 cases per 100 000 persons, 31.1% reduction) and Mpumalanga Province (0.3 cases per 100 000 persons, 5.0% reduction) which reported a decrease in weekly incidence risk, compared to previous week. The increase in weekly incidence risk ranged from 0.7 cases per 100 000 persons (22.3% increase) in Limpopo Province to 24.1 cases per 100 000 persons (27.5% increase) in the Western Cape Province (Figure 4). Some of the reductions in week 49 weekly incidence risk could be as a result of reporting delays. Since the peak of weekly incidence risk experienced at different levels and weeks by the different provinces in July (Western Cape and Eastern Cape peaked earlier in week 27 and Northern Cape peaked last in week 30), all the provinces except for Western Cape, Eastern Cape, KwaZulu-Natal and Gauteng have been reporting an overall gradual

decline in weekly incidence risk. The Eastern Cape Province reported a steep increase in number of new cases and weekly incidence risk from week 43 to 47, the Western Cape has shown a gradual increase in number of new cases and weekly incidence risk from week 44 to date; and KwaZulu-Natal Province and Gauteng Province have been showing a steady increase in number of new cases and weekly incidence risk from week 47 to date.

Among the five provinces reporting the majority of cases in South Africa to date, doubling time of number of cases varied with time. In week 48, the estimated doubling time of number of cases decreased in three provinces, Gauteng Province (from 700.1 days to 558.2 days, 20.3% decrease), Western Cape Province (from 123.9 days to 88.2 days, 28.8% decrease), and KwaZulu-Natal Province (from 454.2 days to 313.8 days, 30.9% decrease) compared to week 47 (Figure 5). Unlike in previous weeks Eastern Cape Province has reported a slight increase in doubling time (from 50.1 days to 54.2 days) compared to week 47. The case-fatality ratio was 2.7% (22 206/814 565); an additional 729 deaths were reported since the last report. The number of deaths reported in the past week was higher than the number reported in the previous week, 729 compared to 574. A crude case-fatality ratio (CFR) calculated in this way (number of deaths/number of diagnosed cases) is subject to numerous limitations. Because deaths are delayed in relation to cases, as case numbers decrease rapidly, the crude case fatality ratio may increase as a result of a more rapid reduction in the denominator compared to the numerator. The CFR may be an underestimate because deaths are more likely to be reported if a patient with COVID-19 died in hospital and deaths out of hospital may be missed; in addition, occurrence and reporting of deaths may be delayed to several weeks after case diagnoses.

Figure 1. Number and cumulative number of laboratory-confirmed cases of COVID-19 by province and date of specimen collection, South Africa, 3 March-5 December 2020 (n=814 565)

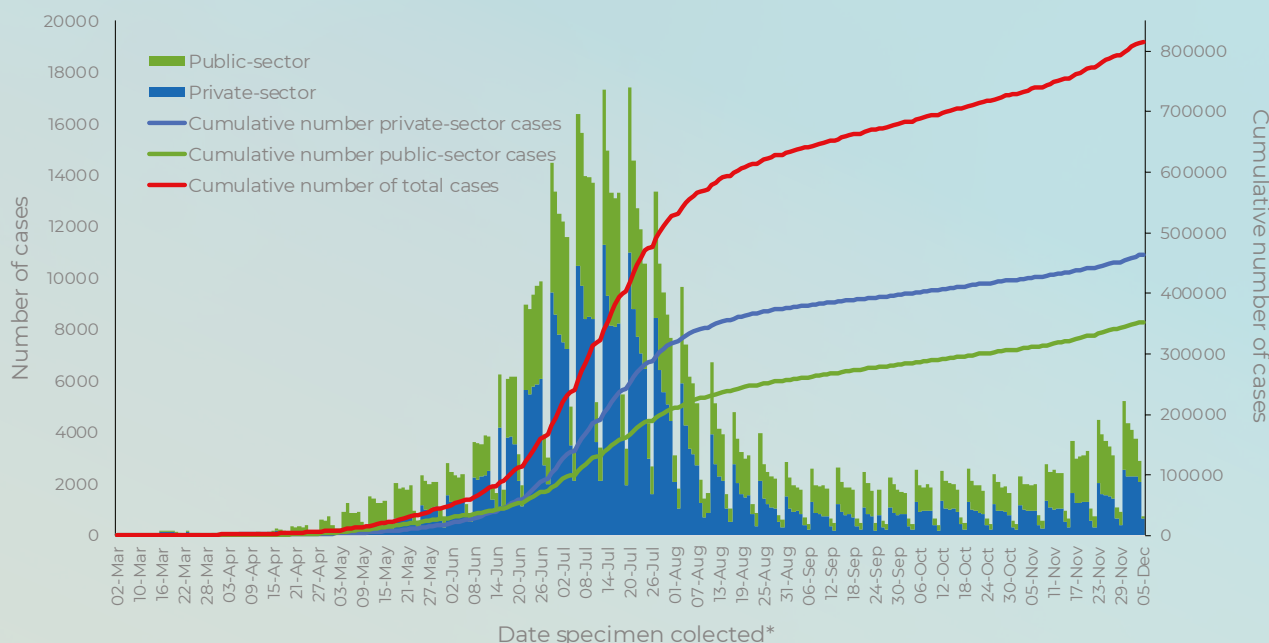


*Date specimen received where date collected missing

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Figure 2. Number and cumulative number of laboratory-confirmed cases of COVID-19, by testing laboratory sector and date of specimen collection, South Africa, 3 March-5 December 2020 (n=814 565)



*Date specimen receipt where collection date missing

Table 1. Number and cumulative/weekly incidence risk of laboratory-confirmed cases of COVID-19 and testing per 100 000 persons by province, South Africa, 3 March-5 December 2020 (n=814 565)

| Province | Cumulative cases (n) (percentage, n/total cases in South Africa) | New cases ¹ detected in 49 (29 November-5 December 2020), n (percentage ² , n/total) | Population in mid-2020 ³ , n | Cumulative incidence risk (cases per 100 000 persons) | Incidence risk of new cases detected in week 49 (cases/100 000 persons) | Tests ⁴ per 100 000 persons, 29 November-5 December 2020 |
|---------------|--|--|---|---|---|---|
| Eastern Cape | 136 772 (16.8) | 6 721 (30.5) | 6 734 001 | 2 031.1 | 99.8 | 322.3 |
| Free State | 59 351 (7.3) | 317 (1.4) | 2 928 903 | 2 026.4 | 10.8 | 185.3 |
| Gauteng | 237 719 (29.2) | 2 745 (12.5) | 15 488 137 | 1 534.8 | 17.7 | 269.7 |
| KwaZulu-Natal | 131 350 (16.1) | 3 408 (15.5) | 11 531 628 | 1 139.0 | 29.6 | 203.0 |
| Limpopo | 18 836 (2.3) | 230 (1.0) | 5 852 553 | 321.8 | 3.9 | 40.2 |
| Mpumalanga | 31 737 (3.9) | 305 (1.4) | 4 679 786 | 678.2 | 6.5 | 110.6 |
| North West | 35 093 (4.3) | 254 (1.2) | 4 108 816 | 854.1 | 6.2 | 73.6 |
| Northern Cape | 23 450 (2.9) | 231 (1.0) | 1 292 786 | 1 813.9 | 17.9 | 211.5 |
| Western Cape | 140 257 (17.2) | 7 809 (35.5) | 7 005 741 | 2 002.0 | 111.5 | 467.8 |
| Unknown | 0 | 0 | 0 | | | |
| Total | 814 565 | 22 020 | 59 622 350 | 1 366.2 | 36.9 | 232.1 |

¹New cases refer to cases whose samples were collected or received in the current reporting week; ²Percentage=n/total number of new cases (specimen collected or received in current reporting week); ³2020 Mid-year population Statistics South Africa ⁴Data on number of tests conducted sourced from COVID-19 weekly testing report of the same reporting week

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Figure 3. Cumulative incidence risk of PCR-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March-5 December 2020 (n=814 565)

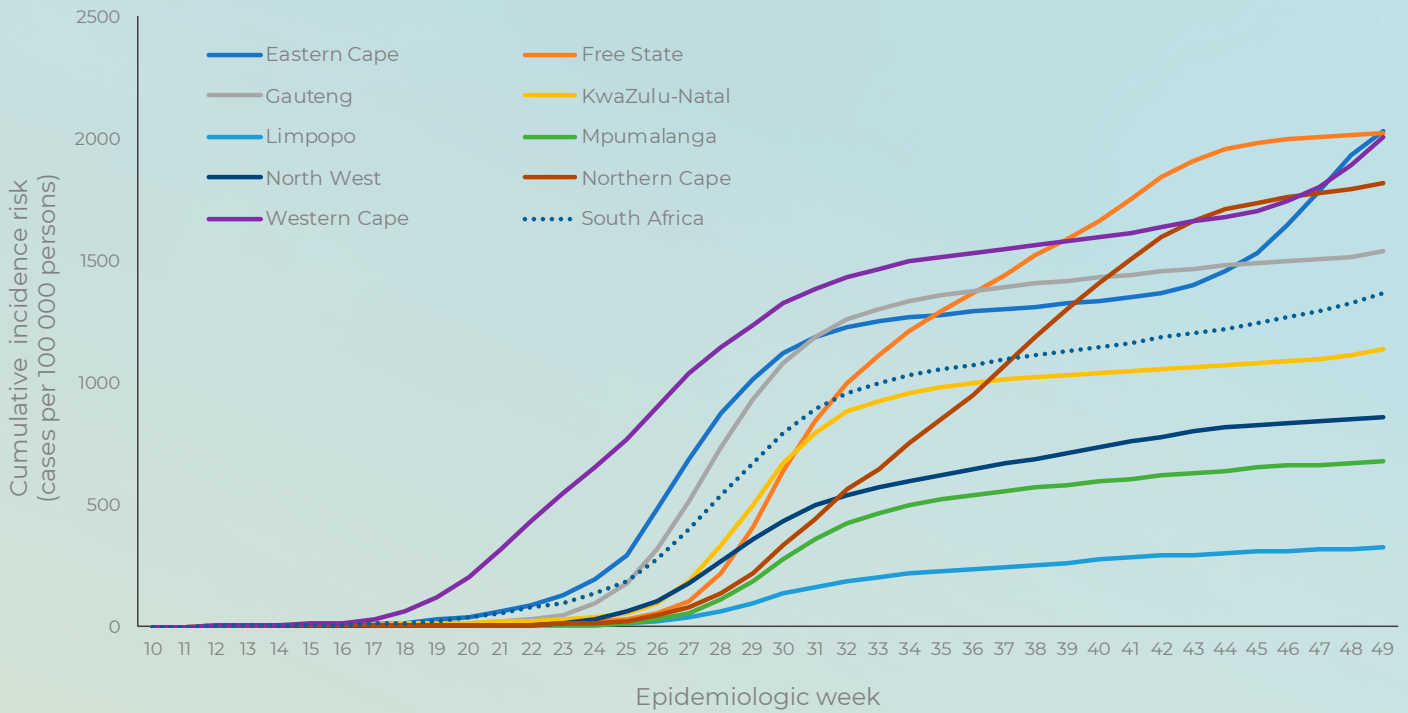


Figure 4. Weekly incidence risk of PCR-confirmed cases of COVID-19 by province and epidemiologic week, South Africa, 3 March-5 December 2020 (n=814 565)

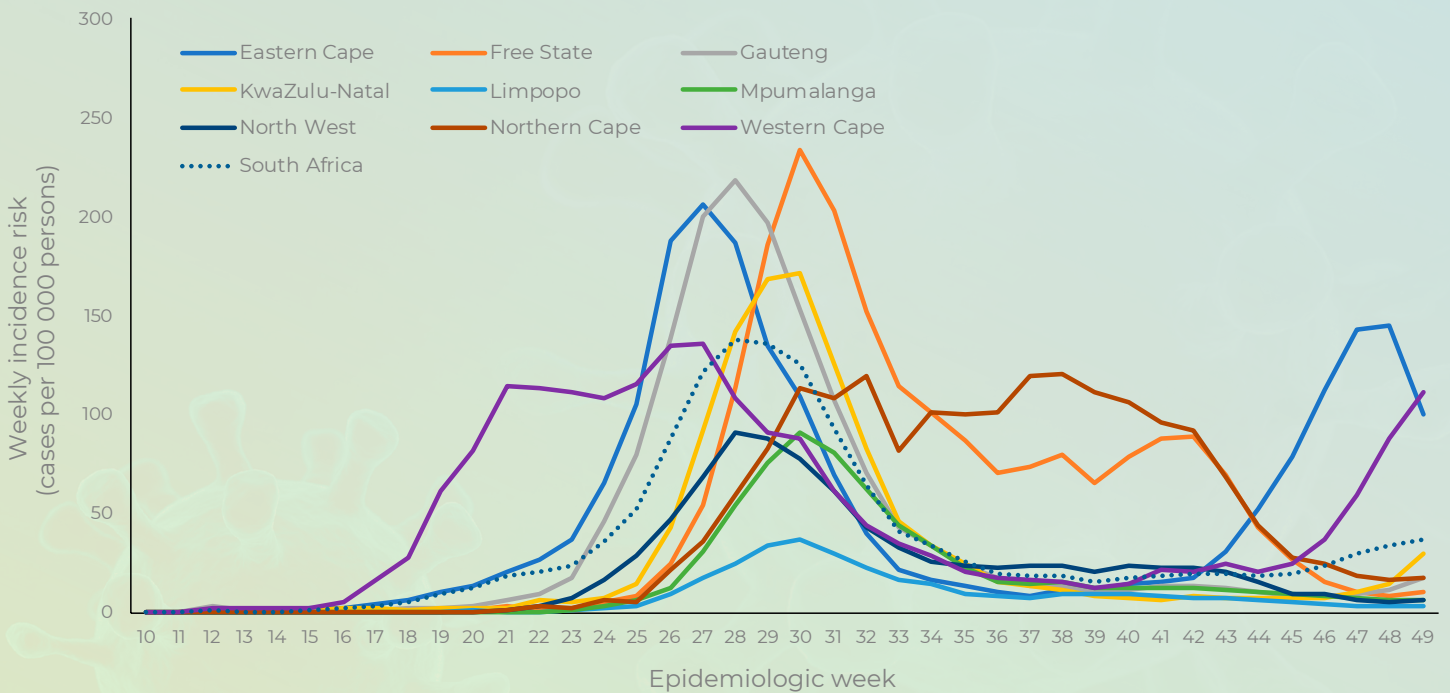
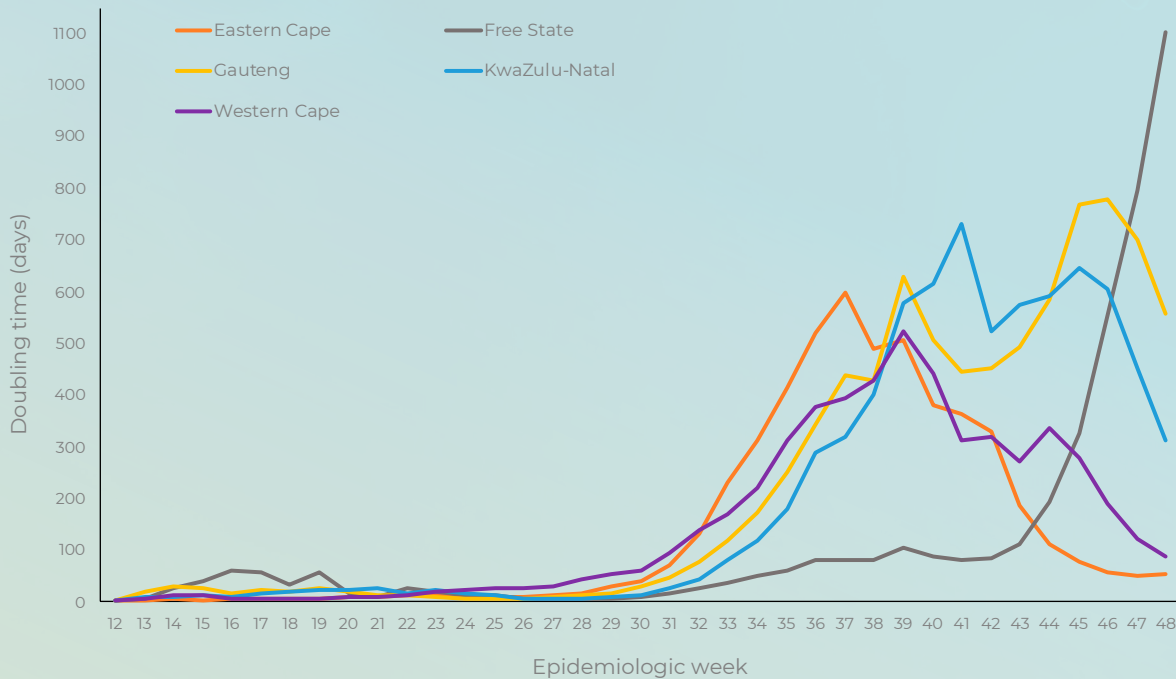


Figure 5. Doubling time of number of PCR-confirmed cases of COVID-19 by province (for 5 provinces with the majority of cases) and epidemiologic week, South Africa, 23 March-28 November 2020 (n= 792 460)



Characteristics of COVID-19 cases in South Africa by age and sex

Cases of COVID-19 were reported across all age groups. The median age of COVID-19 cases in South Africa to date was 40 years with an interquartile range (IQR) of 29-52 years. The distribution of cases varied by age, with highest number of all cases to date in the 35-39-year (100 455/808 347, 12.4%) and 30-34-year (98 335/808 347, 12.2%) age groups (Figure 6). Similarly, among the cases reported in the past week, the highest number of cases was in the 35-39-year-age group (2 405/21 850, 11.0%) followed by the 30-34-year age group (2 304/21 850, 10.5%). The median age for cases reported in week 49 was similar (41 years, IQR 29-54), to that of total cases (40 years). The highest cumulative incidence risk remained among cases aged 50-54 years (2 798.7 cases per 100 000 persons), followed by cases aged 55-59 years (2 676.8 cases per 100 000 persons) and 45-49 years (2 552.6 cases per 100 000 persons). The lowest cumulative incidence risk was reported in the younger age-groups, 167.0 cases per 100 000 persons and 206.7 cases per 100 000 persons in the 0-4- and 5-9-year age groups, respectively (Figure 7 and Table 2). The highest weekly incidence risk among cases detected in week 49 was reported in cases aged 50-54 years (80.8 cases per 100 000 persons), followed by cases in the 55-59-year-age group (77.6 cases per 100 000 persons) and the lowest weekly incidence risk was in

the 0-4-year age group (4.0 cases per 100 000 persons). To date, the majority of COVID-19 cases reported were female (58.1%, 469 432/807 561). This trend continued in the past week where 56.7% (12 395/21 870) of cases were female. The cumulative incidence risk has remained consistently higher among females (1 528.6 cases per 100 000 persons) than among males (1 152.9 cases per 100 000 persons) (Figure 8). The peak cumulative incidence risk was in the 50-54-year-age group (2 954.0 cases per 100 000 persons) for females, and in the 55-59 (2 591.6 cases per 100 000 persons) and 50-54-year-age group (2 584.6 cases per 100 000 persons) for males (Figure 9). In week 49, the highest weekly incidence risk for females was in the 50-54-year-age group (86.1 cases per 100 000 persons), and for males in the 55-59-year-age group (79.0 cases per 100 000 persons). The high prevalence and incidence risk among females could be explained by the fact that females are likely to be more represented in occupations, which put them in close proximity to others and thus exposing them to a higher risk of infection (e.g. teaching and health). This may also be partly explained by varying testing practices by age and sex (data not shown) and by different health seeking behaviour.

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Figure 6. Number of laboratory-confirmed cases of COVID-19 by age group and sex, South Africa, 3 March-5 December 2020 (n= 801 971, sex/age missing for 12 594)

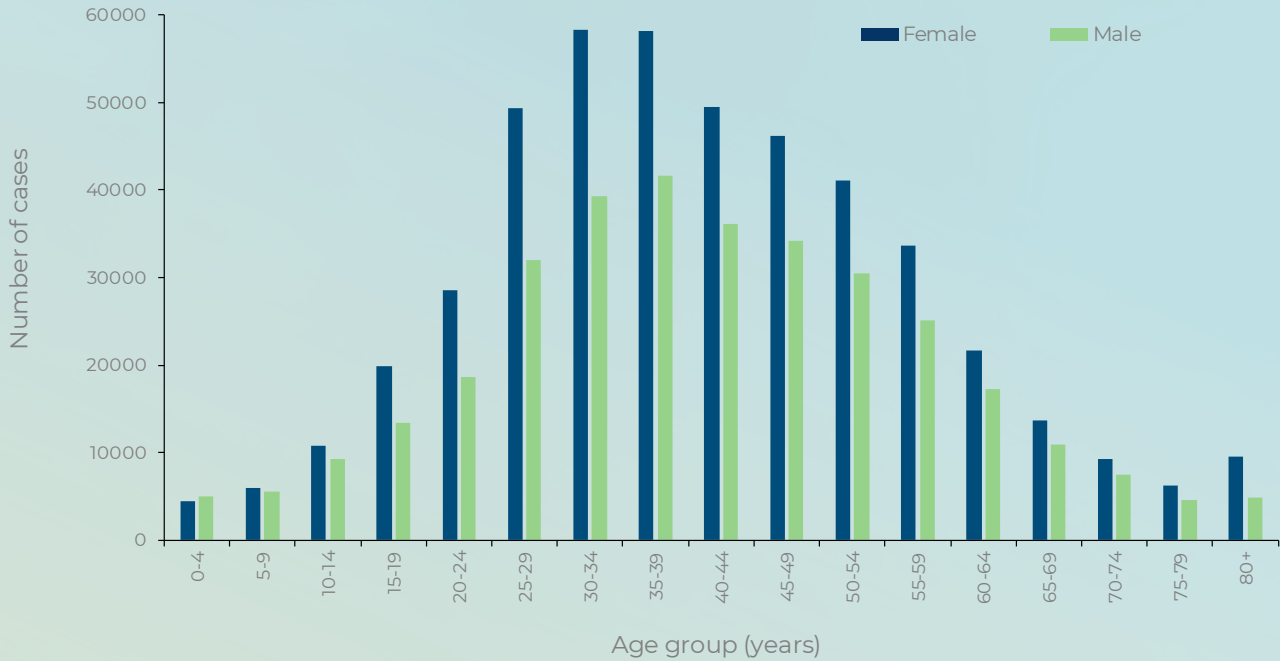
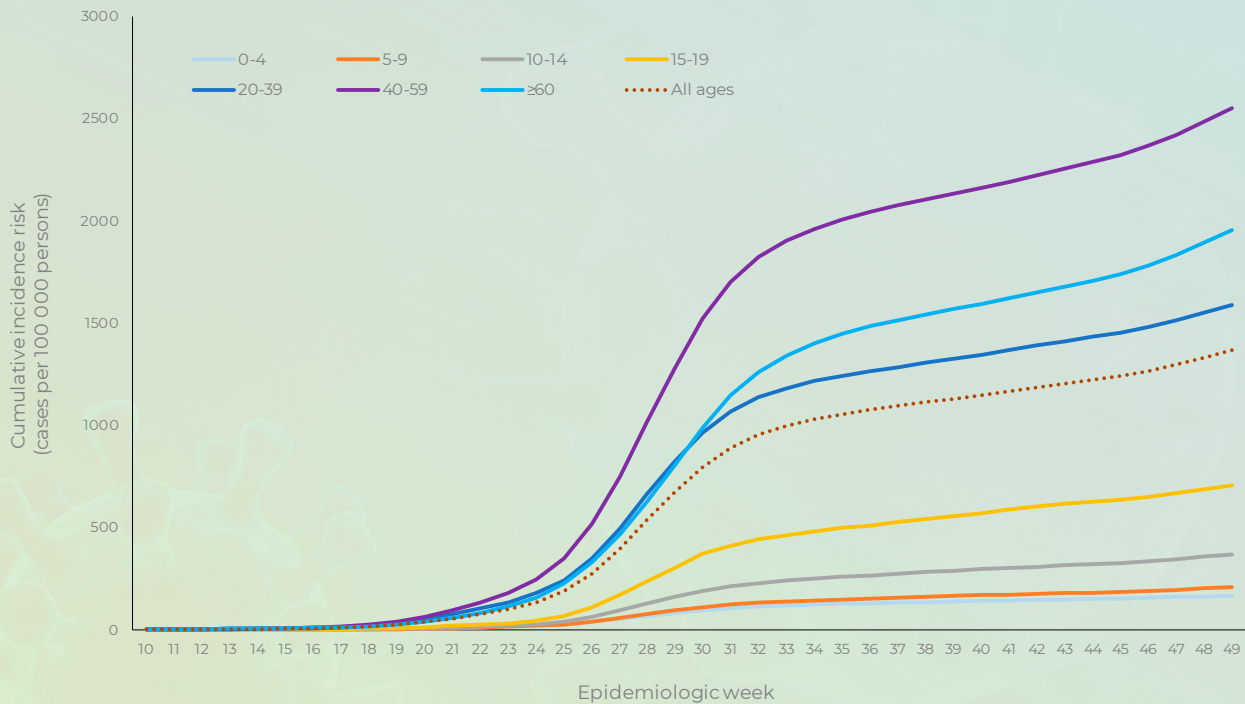


Figure 7. Cumulative incidence risk of PCR-confirmed cases of COVID-19 by age group in years and epidemiologic week, South Africa, 3 March-5 December 2020 (n=808 347, 6 218 missing age)



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Figure 8. Cumulative incidence risk by sex and epidemiologic week, South Africa, 3 March-5 December 2020 (n= 807 561, sex missing for 7 004)

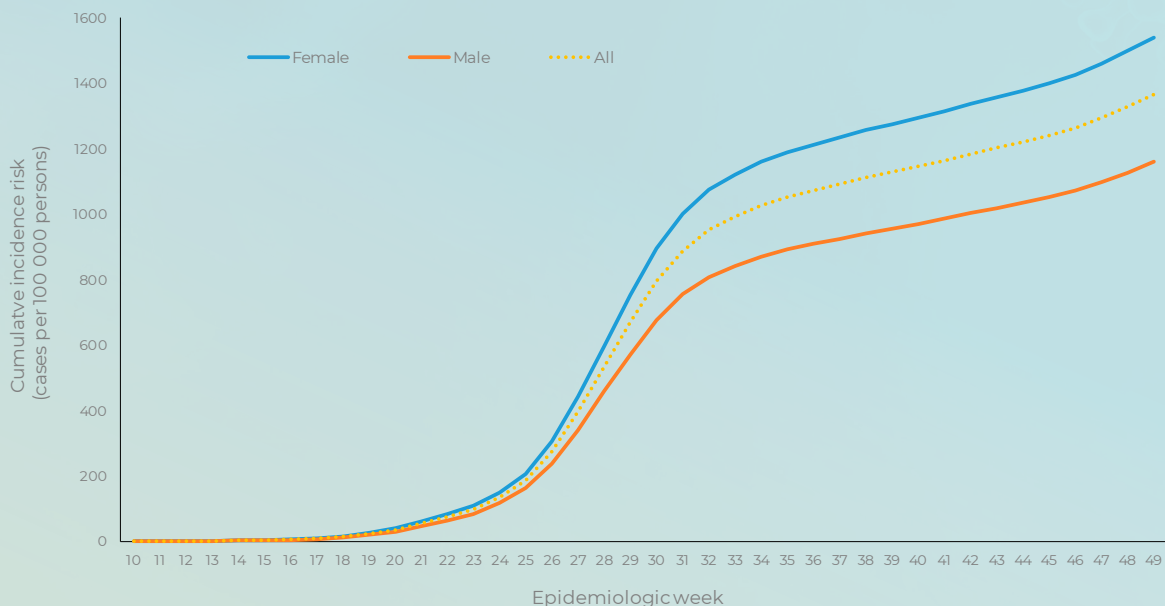
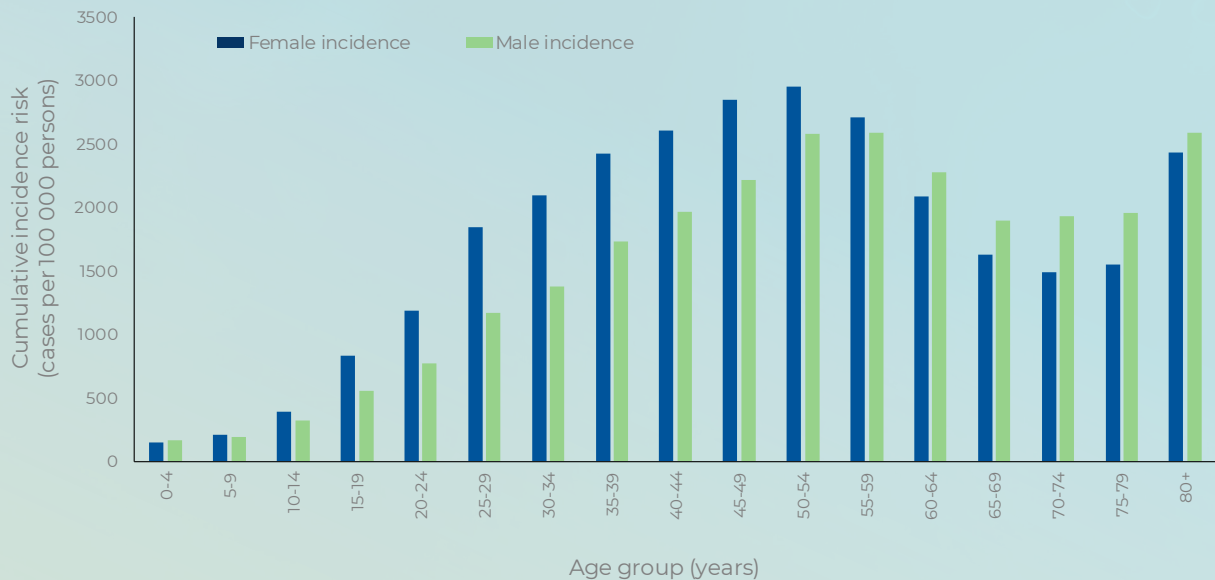


Table 2. Number of laboratory-confirmed cases of COVID-19 and cumulative/weekly incidence risk by age group, South Africa, 3 March-5 December 2020, n= 808 347, 6 218 missing age)

| Age group (years) | Cumulative cases (n) (percentage, n/ total cases in South Africa) | New cases ¹ detected in week 49 (29 November-5 December 2020), n (percentage ² , n/total) | Population in mid-2020 ³ , n | Cumulative incidence risk (cases per 100 000 persons) | Incidence risk of new cases detected in week 49 (cases/100 000 persons) |
|-------------------|---|---|---|---|---|
| 0-4 | 9 592 (1.2) | 227 (1.0) | 5743 450 | 167.0 | 4.0 |
| 5-9 | 11 813 (1.5) | 319 (1.5) | 5715 952 | 206.7 | 5.6 |
| 10-14 | 20 462 (2.5) | 518 (2.4) | 5591 553 | 365.9 | 9.3 |
| 15-19 | 33 662 (4.2) | 1 000 (4.6) | 4774 579 | 705.0 | 20.9 |
| 20-24 | 47 727 (5.9) | 1 586 (7.3) | 4823 367 | 989.5 | 32.9 |
| 25-29 | 82 046 (10.1) | 2 089 (9.6) | 5420 754 | 1 513.6 | 38.5 |
| 30-34 | 98 335 (12.2) | 2 304 (10.5) | 5641 750 | 1 743.0 | 40.8 |
| 35-39 | 100 455 (12.4) | 2 405 (11.0) | 4798 293 | 2 093.6 | 50.1 |
| 40-44 | 86 104 (10.7) | 2 049 (9.4) | 3733 942 | 2 306.0 | 54.9 |
| 45-49 | 80 907 (10.0) | 2 178 (10.0) | 3169 648 | 2 552.6 | 68.7 |
| 50-54 | 71 962 (8.9) | 2 077 (9.5) | 2571 263 | 2 798.7 | 80.8 |
| 55-59 | 59 192 (7.3) | 1 716 (7.9) | 2211 309 | 2 676.8 | 77.6 |
| 60-64 | 39 202 (4.8) | 1 236 (5.7) | 1796 316 | 2 182.4 | 68.8 |
| 65-69 | 24 629 (3.0) | 857 (3.9) | 1408 665 | 1 748.4 | 60.8 |
| 70-74 | 16 871 (2.1) | 582 (2.7) | 1007 174 | 1 675.1 | 57.8 |
| 75-79 | 10 937 (1.4) | 351 (1.6) | 637 062 | 1 716.8 | 55.1 |
| ≥80 | 14 451 (1.8) | 356 (1.6) | 577 273 | 2 503.3 | 61.7 |
| Unknown | 6 218 | 170 | | | |
| Total | 814 565 | 22 020 | 59 622 350 | 1 366.2 | 36.9 |

¹New cases refer to cases whose samples were collected or received in the current reporting week; ²Percentage=n/total number of new cases (specimen collected or received in current reporting week); ³2020 Mid-year population Statistics South Africa

Figure 9. Cumulative incidence risk by age group and sex, South Africa, 3 March-5 December 2020 (n= 801 971, sex/age missing for 12 594)



Trends of COVID-19 cases in Eastern Cape and Western Cape Province

Eastern Cape Province and Western Cape Province have contributed 34.0% (277 029/814 565) of total cases in South Africa to date. In the past few weeks, both provinces have reported an increase in number of new cases and weekly incidence risk. However, Eastern Cape Province reported a decline in weekly incidence risk, which could be due to delays in reporting or a reduction in transmission in the past week.

Eastern Cape Province

Of the 136 772 cases reported from the Eastern Cape Province, 122 370 (89.5%) had allocation by district. Nelson Mandela Bay District (38 722/122 370, 31.6%) followed by Buffalo City District (21 642/122 370, 17.7%) contributed the majority of cases in the Eastern Cape Province. In the past week, Buffalo City District (172.4 cases per 100 000 persons), followed by Sarah Baartman District (164.9 cases per 100 000 persons), Nelson Mandela Bay District (162.6 cases per 100 000 persons), Amathole District (85.6 cases per 100 000 persons), and Chris Hani District (61.0 cases per 100 000 persons) reported the highest weekly incidence risk. In week 49, two districts, Alfred Nzo District (23.9 cases per 100 000 persons, 154.3% increase), and O.R Tambo District (12.9 cases per 100 000 persons, 57.4% increase) reported an increase in weekly incidence risk, and all other districts reported a

decline in weekly incidence risk, compared to week 48. The decline in weekly incidence risk ranged from 180.4 cases per 100 000 persons (52.2% reduction) in Sarah Baartman District to 3.2 cases per 100 000 persons (10.6% reduction) in Joe Gqabi District (Figure 10). The increase in weekly incidence varied by district over time. The weekly incidence risk for Nelson Mandela Bay District increased sharply from week 42 to week 47. Sarah Baartman District showed a gradual increase from week 39 to week 42, when it increased sharply to week 47. The Buffalo City District showed a gradual increase from week 44 to week 45, when it increased sharply in week 46 to week 48. Amathole District's weekly incidence risk increased sharply from week 46 to week 48, and Chris Hani District showed a gradual increase in weekly incidence risk from week 45 to week 48. The peak in weekly incidence risk (369.6 cases per 100 000 persons) reported in Nelson Mandela Bay District in week 47 was much higher than that reported during the first peak (226.0 cases per 100 000 persons) in week 27. Similarly the current peak incidence risk (386.1 cases per 100 000 persons) reported in Sarah Baartman in week 47 was higher than that reported during the first peak (218.1 cases per 100 000 persons) in week 27. All other districts continued reporting weekly incidence risks below those reported during first peaks. However, testing practices may have changed since the first peaks making it difficult to make an assessment of whether the current increase in number of cases and incidence risk is truly higher than that experienced during the first peak. The apparent decrease of number

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of cases and weekly incidence risk reported in week 49 by the five districts (Nelson Mandela Bay, Buffalo City District, Sarah Baartman, Amathole, and Chris Hani) that showed an increase in the past two weeks is possibly due to delays in reporting.

The majority of cases from Eastern Cape Province were in the 40-59-year-age group (50 919/135 657, 37.5%) followed by the 20-39-year-age group (49 107/135 657, 36.2%). In the past week, individuals in the 40-59-year age group (219.4 cases per 100 000 persons), followed by ≥60-year-age group (174.1 cases per 100 000 persons), 20-39-year-age group (105.8 cases per 100 000 persons), 15-19-year-age group (41.2 cases per 100 000 persons), and 10-14-year-age group (27.6 cases per 100 000 persons) reported the highest weekly incidence risk, the other age groups reported weekly incidence risk below 15 cases per 100 000 persons. Compared to the previous week, all age groups reported a decline in weekly incidence risk, the decline ranged from 79.2 cases per 100 000 persons in the 40-59-year-age group (26.5% reduction) to 6.4 cases per 100 000 persons (43.7% reduction) in the 0-4-year-age group (Figure 11).

Figure 10. Weekly incidence risk of PCR-confirmed cases of COVID-19 by district and epidemiologic week, Eastern Cape Province, 3 March-5 December 2020 (n= 122 370, 14 402 missing district)

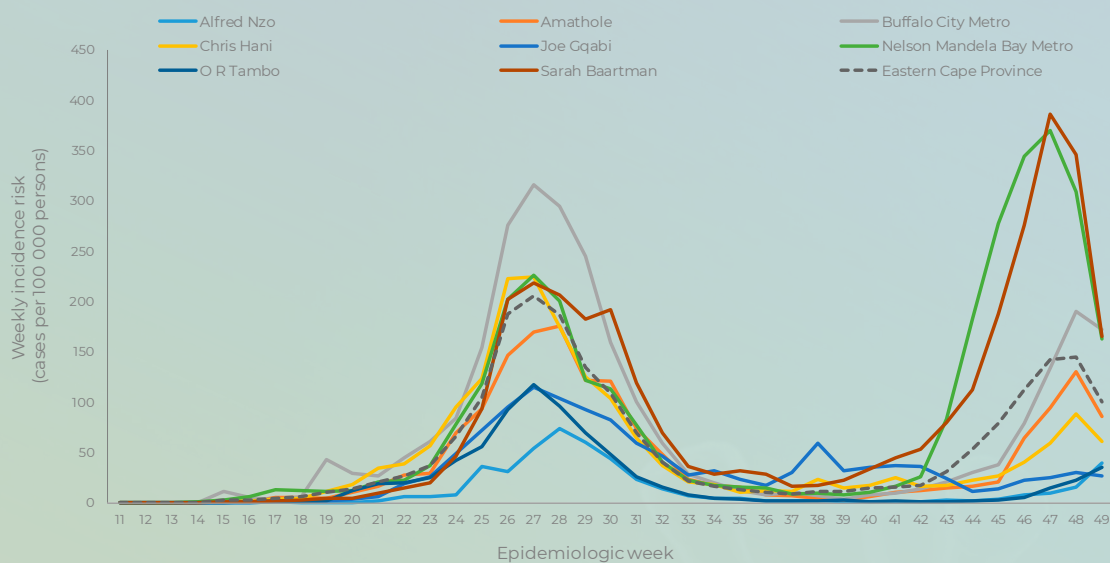
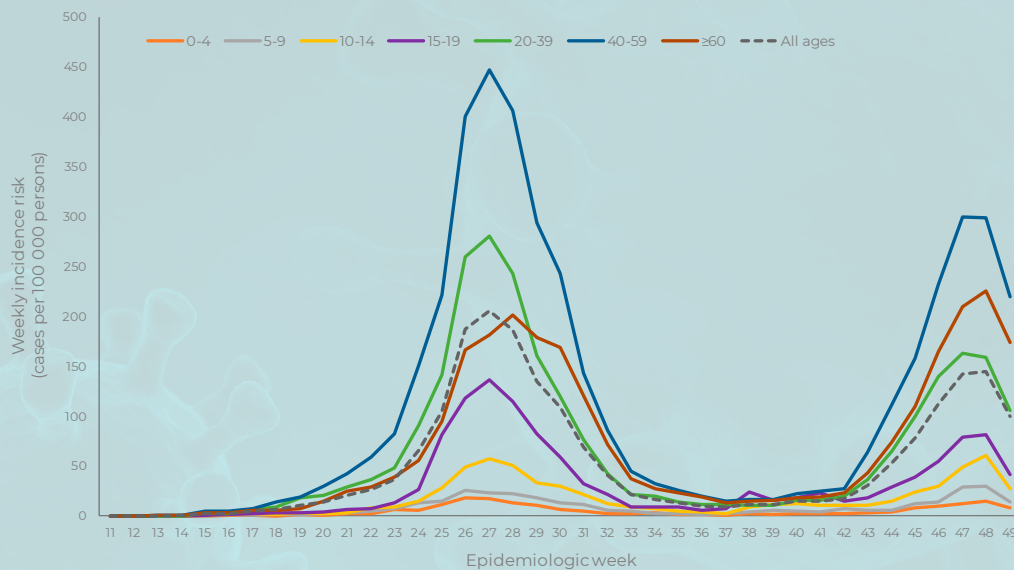


Figure 11. Weekly incidence risk of PCR-confirmed cases of COVID-19 by age group in years and epidemiologic week, Eastern Cape Province, 3 March-5 December 2020 (n= 135 657, 1 115 missing age)



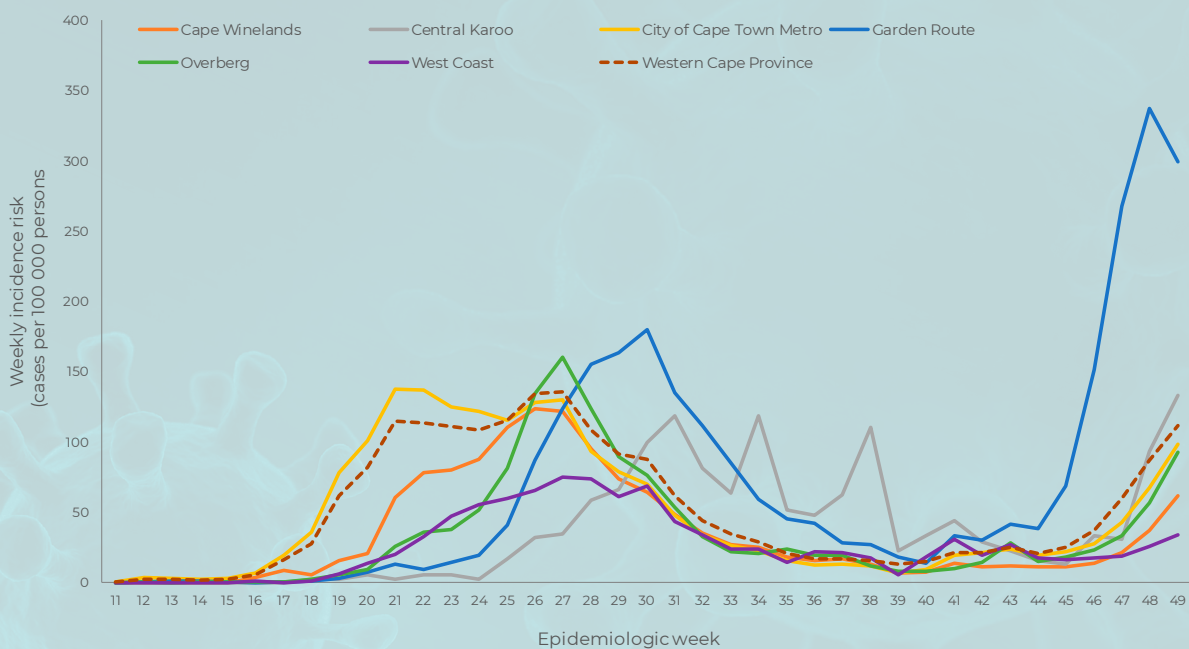
Western Cape Province

Of the 140 257 cases reported from Western Cape Province, 128 385 (91.5%) of cases had allocation by district. City of Cape Town District (89 177/128 385, 69.5%) followed by Garden Route District (16 577/128 385, 12.9%), and Cape Winelands District (12 807/128 385, 10.0%) contributed the majority of cases, all other districts contributed <10% each. As in the previous five weeks, the highest weekly incidence risk in week 49 was reported by Garden Route District (299.4 cases per 100 000 persons) followed by Central Karoo District (133.1 cases per 100 000 persons), City of Cape Town District (98.6 cases per 100 000 persons) and Overberg District (92.7 cases per 100 000 persons) (Figure 12). The number of new cases and weekly incidence risk in Garden Route District increased gradually from week 41 and sharply from week 44 to 48, whereas the number of new cases and weekly incidence risk in City of Cape Town District, Overberg District increased gradually from week 45 to date, and Cape Winelands District from week 46 to date. In the Central Karoo District, the number of new cases and weekly incidence risk showed a gradual increase from week 46 and increased sharply from week 47 to date. The weekly incidence risk (337.0 cases per 100 000 persons) reported in Garden Route District in week 48 was higher than that reported during the first peak (179.9 cases per 100 000 persons) in week 30. Similarly, the weekly incidence risk (133.1 cases per 100

000 persons) reported in Central Karoo in week 49 was higher than that reported during the first peak (118.5 cases per 100 000 persons) in week 31. All other districts continued reporting weekly incidence risks below those reported during first peaks. However, testing practices may have changed since the first peak making it difficult to make an assessment of whether the current increase in number of cases and incidence risk is truly higher than that experienced during the first peak.

The majority of cases from Western Cape Province were in the 20-39-year old age group (58 451/139 768, 41.8%) followed by the 40-59-year age group (51 530/139 768, 36.9%). In the past week, the 40-59-year age group (174.8 cases per 100 000 persons), followed by ≥60-year age group (150.6 cases per 100 000 persons), 20-39-year age group (136.3 cases per 100 000 persons), 15-19-year-age group (51.9 cases per 100 000 persons), and 10-14-year-age group (22.0 cases per 100 000 persons) reported the highest weekly incidence risk. The weekly incidence risk in all other age groups was below 15 cases per 100 000 persons. Similar to the past two weeks, in the past week, all age groups reported an increase in weekly incidence risk, except 0-4-year-age group (0.4 cases per 100 000 persons, 3.0% reduction) which reported a decline in weekly incidence risk, compared to week 48. The increase ranged from 36.3 cases per 100 000 persons (36.3% increase) in 20-39-year age group to 3.1 cases per 100 000 persons (16.5% increase) in 10-14-year-age group (Figure 13).

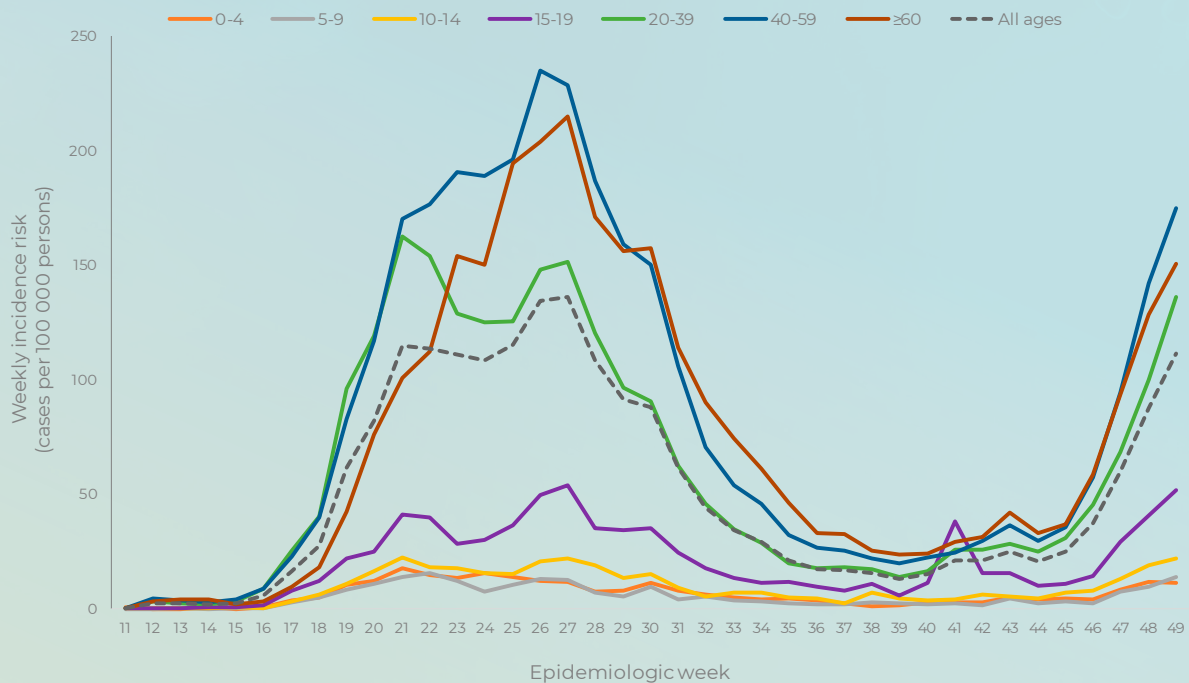
Figure 12. Weekly incidence risk of PCR-confirmed cases of COVID-19 by district and epidemiologic week, Western Cape Province, 3 March-5 December 2020 (n= 128 385, 11 872 missing district)



COVID-19 WEEKLY EPIDEMIOLOGY BRIEF

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Figure 13. Weekly incidence risk of PCR-confirmed cases of COVID-19 by age group in years and epidemiologic week, Western Cape Province, 3 March-5 December 2020 (n= 139 768, 489 missing age)



Limitations

This report is based on laboratory-based surveillance of PCR-confirmed cases. The number of reported cases is heavily dependent on testing practices. Although trends over time and comparisons by geographic area are presented in this report, changes in testing practices over time or differences by region may partially explain the results. The crude case-fatality ratio reported here is subject to numerous limitations: it is likely to be an underestimation as reporting of deaths may be delayed and deaths which occurred outside health facilities may be missed. Differences in health-seeking behaviour by age group and sex could also contribute to observed differences in case numbers between groups. The reported doubling time estimates are affected by the number of tests conducted; if fewer tests are performed, this will also increase the doubling time estimate.

Delays in reporting may result in incomplete data for recent weeks, leading to an apparent reduction in number of cases.

Conclusions

To date, 814 565 cases, including 22 206 deaths have been reported. The number of newly detected laboratory-confirmed cases of COVID-19 in South Africa continued to decrease week on week, since week 28 in six provinces. In the Eastern Cape Province a steep increase in number of new cases and weekly incidence risk, due to a resurgence of cases mostly in Nelson Mandela Bay District, Sarah Baartman District, and Buffalo City District, was reported from week 43 to week 47. However, other districts (Alfred Nzo and O.R Tambo) are starting to show an increase in cases compared to the previous weeks. Numbers reported from the Western Cape stabilised in week 49, possibly related to reporting delays. From week 40 to date, the Western Cape Province showed a gradual increase in number of new cases and weekly incidence risk driven by an increase in cases largely reported from Garden Route District, and to a lesser extent by Central Karoo District, Overberg District and City of Cape Town Metro. Nationally, the weekly incidence risk of cases per 100 000 persons has been increasing gradually since week 46, due to an increase in number of new cases reported from Western Cape Province and Eastern Cape and to a lesser extent KwaZulu-Natal Province and Gauteng Province, however delays in reporting could possibly have masked increases in other provinces.